ENERGY

$1.00
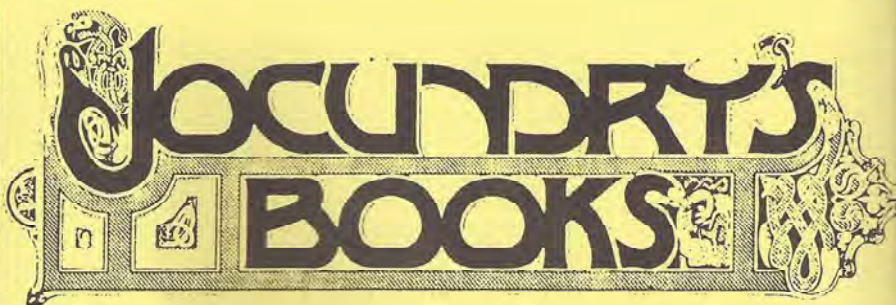
ENERGY = MC²...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

Preston

WOW! THANKS MOM AND DAD! JUST WHAT I WANTED, SOMEONE TO PLAY WITH, MY OWN LITTLE BOY!!!

EDITORIAL

Auerbach Publishers Inc. publishes a looseleaf reference service called *MicroWorld*, which offers descriptions and evaluations of available hardware and software for microcomputers. Part of its monthly update service is *Best Sellers*, which lists the 'top ten' selling software products in accounting, database management, management tools/productivity, and word processing. Columns beside each title indicate the system(s) for which the software is designed; Atari, Apple, Commodore, IBM-PC, TRS-80, DEC, TI, CP/M, 'Miscellaneous' are the system headings. Each system, then, can be checked a maximum of forty times (i.e. - each of the top ten packages in each of four categories *could* be checked.

In the November *Best Sellers* it is needless to say that no system scored a perfect 40, but the results are nevertheless interesting. No one should be surprised to learn that Apple (27) and IBM-PC (29) showed the greatest popularity. But dragging up the absolute rear in this survey were Atari (3), Commodore (1) and TRS-80 (1). CP/M (13) placed respectably in the middle of the pack.

These results hold a number of implications for the user groups represented in the pages of *Energy* magazine. First, it says our machines are definitely minor forces behind the sales of the most popular applications programs. If these figures are studied by the brightest software authors, it almost guarantees that those authors won't be spending much of their creative energies on programs for Atari, Commodore or Tandy machines (ACT computers for brevity).

Secondly, if we concede that there are millions of ACT computers out there, and if they aren't showing up 'on the charts', there could be four explanations for it. Perhaps ACT owners only play games on their computers. Or worse, maybe most of those millions of micros are just gathering dust in the backs of closets. Again, maybe ACT users are mainly hobbyists who write their own code for whatever they want to do, although I have a strong hunch that very few micro users are programming anymore. And finally, it is possible that most of us have discovered what it is we want to do with our computers, and we have already acquired the software to do it. I personally haven't bought new software for a long time, and maybe the same is true of a lot of you ACT owners.

Even if all of these possibilities are contributing to the situation, though, we're not talking absolute disaster. After all, you've still got your box and it is working for you as well now as it did before these statistics came to light. But future software support for your machine will probably slow to a trickle, in favor of the new 16 bit machines. Makes one wonder if it's time to start shopping for one of them.

LANSING AREA GROUPS

Apple LUG (Lansing User Group). Contact: C.A. Box Tree Lane #101, East Lansing MI 48823, 351-1516.

CCUG (Color Computer User Group) Meets: East Lansing Public Library, 950 Abbott Road, East Lansing MI 48823.

CHAOS (Capitol Hill Atari Owners Society) (MC2 member). Meets: 3rd Saturday, 9:30 AM, Foster Community Center, 200 N. Foster Street, Lansing MI 48917. Contact: Ike Hudson, 351-3092.

CHAOS Assembler SIG. Meets: 3rd Thursday. Contact: Wendell Proudfoot, 371-3678.

CHAOS BASIC SIG. Meets: 1st & 3rd Thursday, 7 PM, Foster Community Center, 200 N. Foster Street, Lansing MI 48917.

CMTUG (Central Michigan TRSS-80 User Group) (MC2 member). Meets: 1st Sunday, 1 PM, Library of MIchigan, 735 East Michigan Avenue, Lansing MI 48913. Contact: Sky Tribell, 349-1857.

LACC (Lansing Area Commodore Club). Meets: 2nd Wednesday, 7:30 PM, East Lansing Public Library, 950 Abbott Road, East Lansing MI 48823. Contact: Jim Myers, 487-1043 (days), 487-9738.

M36 (Mid-Michigan Microcomputer Group) (MC2 member). Meets: 3rd Thursday, 7:30 PM, East Lansing Public Library, 950 Abbott Road, East Lansing MI 48823. Contact: Joe Werner, 337-7415.

M36 Executive Committee. Meets: 1st Thursday, 7:30 PM, Beggar's Banquet, East Lansing MI.

M36 CP/M SIG. Meets: Last Thursday, 7:30 PM, Capital Federal Savings & Loan, Hamilton Road, Okemos MI 48864. Contact: Greg Martin, 484-5850.

M36 Heath/Zenith SIG. Meets: 2nd Tuesday, 7:30 PM, Library of Michigan, 735 East Michigan Avenue, Lansing MI 48913. Contact: Bill Goodwin, 349-9657.

M36 Osborne SIG. Meets: 2nd Wednesday, 7:30 PM, East Lansing MI 48823. Contact: Jim Pease, 332-8746.

UPCO (Unknown Personal Computer Organization) (IBM-PC) Meets: 4th Tuesday, 7:30 PM. Contact: Dick Janson, 323-7000 x224 (days), 675-7453 (evenings).

TI Users Group. Meets: 2nd Tuesday, Naval-Marine Corps Reserve Center, 1620 E. Saginaw, Lansing MI 48917. Contact: Steve Bennett, 394-1439 (evenings), 377-1676 (days).

NOTE: This listing is not guaranteed to be absolutely accurate, but we try. To add an entry, or to make a correction, contact Joe Werner at 337-7415.

JOEY AND THE PRINTER
by Virginia Werner

Joey stared longingly at the printer in the computer store window. It was beautiful. It had a white case and could print upper & lower case, and fancy characters. But best of all it could use almost any kind of paper and could even print labels.

Joey had been drooling over the printer since he had first seen it in the window. It was the one thing he really wanted for Christmas. But what with things the way they were Joey knew the printer was well out of range of the family's budget.

Still, he knew he could hope. If he had been younger he might even have written a letter to Santa Claus. As it was, he was saving up every penny from his paper route. So far he had a little more than $50, far short of the printer's cost.

Mr. Y, who ran the store, saw Joey at his window. He liked Joey because he was unlike most other kids who were only interested in games. He motioned Joey into the shop.

"How's everything going, Joey? Can I interest you in anything today?",he asked.

"That sure is a swell printer you've got in the window," said Joey. "Got anyone interested in it yet?"

"Well, I got one prospect," said Mr. Y.

"Oh!" said Joey. "ARe you going to sell that one?"

"I think somebody is gonna find it under the tree come Christmas morning."

Joey's face fell. He knew that somebody was not going to be him. He managed a muffled 'good-bye' to the man and ran out the door.

"If only there were some way for me to make some extra money," he thought to himself. But if his Ma couldn't find a job he didn't know how he could do any better than his paper route. So he spent the next few days avoiding the computer store. If he couldn't have the printer he didn't want to know when it was gone, or maybe see who was getting it.

Finally it was the day before Christmas. Joey just had to see for himself if the printer really was gone. He strolled past the computer store trying to act casual, but all he could manage to do was attract Mr. Y's attention.

"Howdy, Joey," he called. "You looking forward to a visit from St. Nick? I sure haven't seen much of you lately."

"Oh, hi Mr. Y, I see the printer's gone."

"Yup. It was picked up just this morning."

"I'll see you later," said Joey. "I gotta run. Bye."

"Bye. And a merry Christmas to you."

Joey ran almost all the way home. He was very quiet that night and his parents were worried about him, and kept asking him if he didn't feel well. He finally retreated to his room, deciding he was too big to cry in front of his parents. He purposely did not set his alarm for six the next morning. Maybe he could sleep through Christmas!

The next morning his mom came into his room.

"Joey, wake up! Don't you want to see what Santa has left for you?"

He really didn't, but he knew if he said so his mom would keep him in bed and probably even call the doctor. So he climbed out of bed and went downstairs. His father and his brother were already by the tree, and when Joey got there mom started handing out the packages. Joey took his and started unwrapping them: a new pair of mittens, a 'Frogger' game, and a few other things. He managed to say thank you and started out of the room.

"Joey," his father called. "You forgot one."

Joey turned around to see a large white package with a red bow on it. "Be careful, son," his mother warned. "I think it's breakable."

When he removed the wrappings Joey saw it was the printer!

"Is it truly mine?" he asked.

"Well," his father said, "Mr. Y is letting us pay for it a little at a time. If you want to keep it, you'll have to help us make the payments."

"Oh, thank you! Thank you! Joey cried. "You can have all my paper route money to start!"

It was the happiest Christmas Joey ever had.

Computer Graph-Pics

COMPUTERPIX PROMOTIONS
P.O. BOX 1343 · EAST LANSING, MICHIGAN 48823 · (517) 337-8320

18-Nov-83

This was going to be a rather spectacular display ad, but
I ran out of time. Instead it's more of an invitation.

For the last several years, my wife Abby and I have set up
our computer portrait system in various area malls from
Thanksgiving to Christmas. This year we are in the Haslett
Village Mall, southwest corner of Haslett and Marsh roads,
between Redi-Care and Doug Brown Music. Mid-West Computers
was in this space before they moved across Marsh road.

We have Christmas gifts for moms & dads, aunts & uncles,
grandparents, friends, computer widows, and so on.

Calendars, T-shirts, and Posters just $5.00 each.
Jig-saw puzzles $3.00 each, or 2 for $5.00.
Tote Bags and Aprons $8.00.
Toilet seat covers too.
$1.00 extra for multiple faces ("yes, we can fit eighteen
kids into one picture, but it'll cost you $1.00 extra")
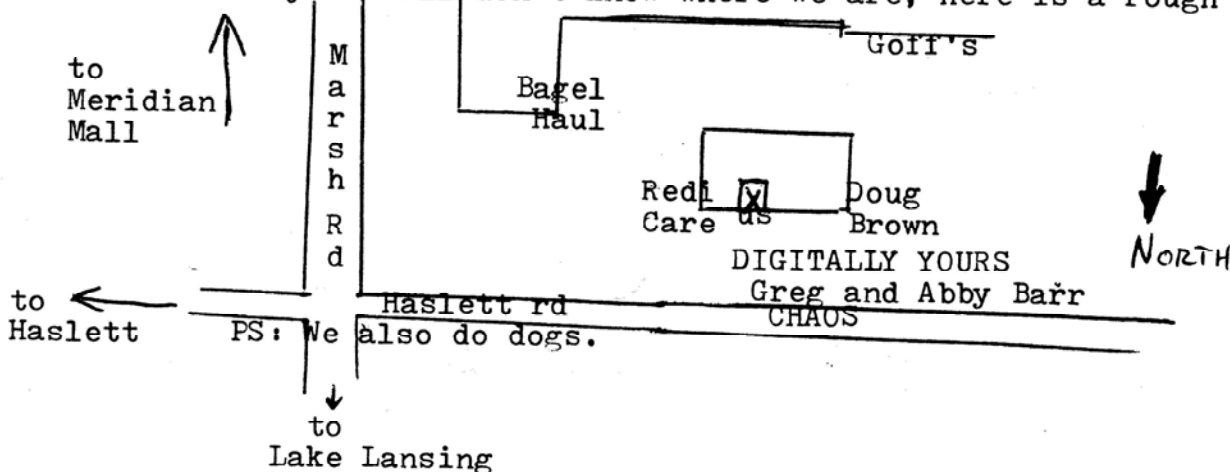Buy five or more items, get $1.00 off each. Bring a friend!

Free computer portrait...just drop by and mention this ad.
If you didn't see this ad, don't mention it.

We also do mail order. $1.00 extra/item.

Now for some technical stuff. The portrait measures 11 by 11
inches, with a pixel resolution of .1 inch. The process uses
a sixteen shade gray scale and requires slightly less than
3/10 second for a full scan. 12,100 pixels. Names to drop:
Digital PDP-11v03, Echolabs digitizer, H-19 terminal,
Centronics 102BL printer @ 330 cps.

Almost forgot--we can do lettering both above and below
the portrait, 18 characters each, uppercase ASCII

If you still don't know where we are, here is a rough map:

```
                              |                           Goff's
   to               ↑         M
   Meridian         |         a         Bagel
   Mall             |         r         Haul
                    |         s
                    |         h                 ┌──────┐
                    |                            Redi ⊠ Doug      ↓
                    |         R                  Care   Brown
                    |         d                  DIGITALLY YOURS   North
   to  ←────────────┼─────────────────────────── Greg and Abby Barr
   Haslett      PS: We also do dogs. Haslett rd   CHAOS
                    |
                    ↓
                    to
                 Lake Lansing
```

MID MICHIGAN MICROCOMPUTER GROUP

M³G

ABOUT M3G

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AROUND THE INDUSTRY

by Joe Werner

HAPPY BIRTHDAY, ZENITH

Congratulations are in order to Zenith Corporation, which is celebrating its 65th anniversary this year. Zenith began in 1918 near the old Edgewater Beach Hotel in Chicago, when two partners formed the Chicago Radio Laboratory. The company manufactured equipment for the amateur radio market under the trademark Z-Nith, derived from 9ZN, the call sign of the amateur radio station operated by the partners. In 1979, Zenith acquired the Heath Corporation and made its entry into personal computing with the H/Z-89. Now they are out with the Heath/Zenith Z-100, one of the really nice machines on the market.

THE PHOTOPHONE

Sending communications signals over a modulated beam of light is a new invention, right? Bell and GTE are just now starting to use fiber optics and light to improve the telephone network. But I'll bet you didn't know that the first men to transmit voice over a beam of light were Alexander Graham Bell and his lab assistant, Sumner Tainter, on February 19, 1880! Bell called his invention, which used a modulated reflected sunbeam, the "photophone". In June of 1880, the two men transmitted intelligible voice from the top of the Franklin School in Washington, DC, to Bell's laboratory at 1325 L Street, a distance of 213 meters. Later, Bell and Tainter were granted several patents covering the photophone and its variations. In an article in Popular Electronics (April, 1980), Forrest M. Mims stated that, "until his death in 1922, Bell considered the photophone to be his most important invention, more important even than the telephone." Truly there is nothing new under the sun.

WATSON, COME HERE

Speaking of Bell, you may have seen ads recently on TV which re-create the famous incident leading to the invention of the telephone. But did you realize that the Watson who assisted Mr. Bell went on to make a name for himself as general manager of a small company called the Computing-Tabulating-Recording Company. In 1924, the company was renamed the International Business Machines Corp.

PC REVISITED

I cannot pretend to write a column about computers this month without taking note of IBM's introduction of the long-awaited "peanut", now known as the PC Jr. But since every

news report on that fateful day reported on the introduction, pardon me if I omit a lot of the details, which you can find in back issues of your local newspaper if you've been living on a mountaintop for the past month or so.

But I would like to take note of another announcement which IBM came out with in October. In addition to the new PC Jr., you see, IBM has also introduced the PC Sr. The new machine is the PC XT/370, which expands the IBM PC XT personal computer to be a desktop IBM 370 computer running the VM/CMS operating system (which IBM is calling VM/PC), and standard IBM 370 applications.

The XT/370 is actually a three-board add-in to the IBM PC XT. The first board adds two custom Motorola MC 68000-based processors and an Intel 8087. This board gives the XT/370 the ability to execute native 370 code. A second board gives the XT/370 512K of memory and a 4 M byte virtual memory space. The third board provides a coaxial attachment allowing the processor to connect to an IBM 3274 display control unit, thereby hooking into an IBM 370-style mainframe.

The add-on is priced around $5,000; typical system price for a 10 megabyte fixed disk system would be $8,995; with 20 megabytes of disk the price is $11,690. Availability is second quarter of 1984.

Quoting from an article from MIS Week (Oct. 26, 1983): "Through virtual storage in the VM/PC mode, the XT/370 may be operated as a single system 370/VM/CMS workstation with up to four million characters of virtual memory.

"Programs and information can be transferred from a host processor to a XT/370 workstation where files can be created and edited along with the compilation and generation of reports that are then sent back to the host computer.

"The desktop workstation can serve as a distributed system for those who need the extensive software library of a System 370 processor at their desk along with the consistent response time that a powerful single-user machine offers."

IBM reportedly stated that the PC XT/370 processor performance was about one-half that of a 4331-1 in commercial mixes and two times the 4331-1 in scientific/engineering workloads.

In another announcement made at the same time, IBM released the "3270 PC", a desktop unit that displays seven windows, four with data from multiple-host computer applications, two electronic notepads, and one personal-computing session. Information can be seen in seven windows

at the same time. The windowing functions will allow users to move information around, making windows bigger or smaller as well as changing color. Information on the screen can be processed, printed, or transferred between windows. Data can be transferred from a host computer and then stored on a diskette for later use.

These are product introductions that a large DP shop should be intensely interested in. The fact that the "Personal Computer" has progressed so far so fast is not terribly surprising. But it is amusing to recall that the early IBM 360/30 was internally an 8 bit machine with a 64 K byte address space. We certainly have come a long way!

VIEW FROM THE TOP
by Joe Werner
President, M3G

At our regular meeting on November 17, the club budget and dues structure was considered and debated. The proposed dues of $12 per year was adopted. It is effective with members joining after January 1, 1984, or existing members whose renewal date is January 1 or later. New members who join between now and the end of the year can receive a tremendous bargain: one year dues at $6.

In other news, our club software library is off the ground with the acquisition of the SIG/M library of public domain CP/M software. Special thanks to Tom Stilwell for making it happen and to Greg Martin and Computer Options (Radio Shack dealer in Charlotte) for supplying the copying machine and the diskettes.

Elections are coming up in the January meeting. We will be electing a President, a Vice President, and a Secretary/Treasurer, if we follow our present structure. Traditionally, we have had two Vice-Presidents, one designated "hardware" and one designated "software". In practice, the distinction has not been clear, and I would suggest scrapping the designations. Questions for debate in December: Do we want to keep two Vice Presidents? Do we want to split the offices of Secretary and Treasurer? Do we want to make any other changes in our structure? (Discussion at the meeting will be brief!)

Upcoming meetings are:
Thursday, December 15, 1983
Wednesday, January 18, 1984.

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On Display Now -- Limited Quantities Available:
      Sanyo MBC 1100 and 1200 Z80 CPM machines ---- $1995.00 +
      Sanyo CRX 1100 Video Terminal   ---- $ 695.00
      Sanyo MBC 550 IBM Compatible (128k, 1 drive) -$ 995.00

Special -- Novation Smartcat 1200 baud modems, autodial,
      autoanswer. $595.00 list -- our price, $450.00

Media -- Eight inch single sided double density -- 10 / $35.00
         Five inch single sided double density   -- 10 / $20.00

FREE SOFTWARE !!!!!!!!! --- Attention CPM users: We now have
available a 130 disk public domain software library (Sigm), available
for nominal copying charges.

Full Repair Service - Radio Shack - Sanyo - Other Manufacturers

---

December Coupon Special!

Free 5 1/4 inch SSDD diskette with

   this coupon.

(one per month per customer)

CHARLOTTE STORE	LANSING EXCHANGE	HOME OFFICE
(517) 543-0030	(517) 484-8883	(517) 484-5850

COMPUTER OPTIONS

Gregory J. Martin
Vice President

Radio Shack
DEALER

109 Lansing Street, Charlotte, Michigan 48813

CPM Corner

by Greg Martin

Today I received a call from that stalwart campaigner for the past presidency of M3G, Joe Werner. I was officially put on notice that as the new chairman of the CPM Sig, it behooves me to write a column for 'Energy.' So here we are.

In this month's column I will talk about the CPM Sig, and our (or at least my) hopes for the next few months. The CPM Sig supports users of the CPM operating system, primarily CPM 80 (2.2). This system is found on many different machines, and I don't believe any two current members have the same kind. One of our main interests lies in getting "CPM compatible" software running on these machines, sometimes a difficult task. (I recommend Jerry Pournelle's article in the November Byte to give you an idea of the fun involved.)

As grist for the mill, with the parent organization, M3G, we are obtaining the entire SIGM and CPMUG public domain software libraries. Joe Werner, Frank Dolinar, Tom Stilwell and I have a date the weekend of November the nineteenth to make copies of the 130 diskette SIGM library. At the next meeting, I hope to distribute an index to the SIGM library; Frank, Tom, Joe and I will share our excitement over the goodies we have found.

We will also be taking orders for SIGM disks. Deciding how to do this has been a real problem. While the Sig, M3G, the Osborne and Zenith Sigs have all wanted access to this software, we haven't been able to spring for the 130 disks to make a complete set of eight inch sssd disks for the library. This expenditure is one of the items included in the proposed M3G budget for 1984.

In the meantime, those of us at Computer Options had been discussing ways of supporting CPM, as CPM 3.0 is soon to be available for the Radio Shack systems, and we have just picked up the Sanyo line, which features Z80 based CPM machines. Through one means or another, we intended to pick up the public domain CPM libraries as an added service to our own customers.

The arrangement we have agreed to with M3G and the Sigs is that we will supply the disks for making a local copy of the library, and that we will make a copy of the library or individual disks for M3G or its Sigs as money for diskettes becomes available. In the meantime, Computer Options (i.e., me) will provide a reduced cost copying service to M3G members. The formats available are eight inch ssdd, and five inch ssdd Osborne and Xerox 820. The cost will be $5.00 per diskette for eight inch media, and $4.00 for five inch. Our charges to others will be $7.00 and $6.00 per disk. These charges will allow us to cover the costs of the media, pay the poor sucker who gets stuck with all that copying, and reinvest in further public domain software to keep the library up to date. When M3G, the CPM Sig, and other Sigs obtain copies, they will establish their own policies for distribution.

Some folks may be skeptical of the value of "free" software. Perhaps unfortunately, the value of software never seems to correspond to its cost. We've all paid good money for junk, and some of the best software available is in the public domain, including languages, communications programs, editors, file managers -- you name it.

This library will provide plenty of program material for the Sig meetings. Both the software itself and the problems in moving it from system to system should make for interesting discussions. I'll be looking for people to present programs at the Sig meetings. Although we have some real experts among us, what we really need are some people with a little knowledge and a big interest, who will take some time to learn about something and share it with us.

Recently Frank Dolinar and I spent several hours trying to recover a crashed disk. It was apparent that neither of us knew as much as we could about diskette recovery. I'll make a personal commitment to explore CPM diskette formats and file recovery using "DUU," a public domain disk utility, and to share what I find out with you at the December CPM Sig meeting.

I will be most happy to hear of ideas and volunteers for further programs, and I look forward to seeing all you CPM'ers at our next meeting.

H/Z SIG NEWS
by Bill Goodwin

The December meeting of the HZ-SIG will be Dec. 13th at 7:30 PM, at the Library of Michigan, 735 East Michigan Ave. At the time this column was written the subject of the meeting was unknown. I assume there will be a program of some kind.

First, a consumer warning: BEWARE OF IBEm !!! The Wideman Computer Co. program for emulating the PC on a '100 (IBEm) is a piece of JUNK!! Stay away. I found out the hard way. I hope I've learned my lesson. From now on I buy only from known sources. (HUG, Software Toolworks, Software Wizardry, Studio Computers, etc.)

Tired of waiting for JRT Pascal? The Nov. issue of *Microsystems* had an ad for a new Pascal. Called Turbo Pascal, it compiles to object code, not p-code. Price is $49.95. Unlike JRT it is available for more operating systems than just CP/M. This version is available for CP/M-80, CP/M-86, MSDOS, and PCDOS. (What, no HDOS?) I'm going to keep my eyes open for reports on this compiler.

If you are interested in the C language, then you may have an interest in the C users' group. While not a well-known group, they do have a nice library available to members as well as a newsletter. The newsletter can be obtained for $10/six issues from:

C Users' Group Inc.
112 N. Main, Box 287
Yates Center KS 66783

Two items from the CHUG newsletter. The first is sheer rumor. ZDOS 2.0 will be out by year's end. I'll believe that when I boot it up on my machine, not before. The other item was a lengthy article on connecting the Gemini 10X to the '100. If you are interested in this combination I can provide a photocopy of the article.

If you can't wait for Heath to provide CP/M-86 and MP/M-86 then you're in luck. Buss reports that Barry Watzman (former head of Heath Computer Products) has 'installation kits' available to get Digital Research's generic versions running on the '100. CP/M-86 kit costs $70 and MP/M-86 costs $125. Because CP/M-86 is required to get MP/M-86 running the $125 price includes the CP/M-86 kit as well.

Now for the bad news. HSCOOP says that the Z-80 cpu card and soft-sector-controller card for the H-8 are no longer available from Heath. The good news is that Trionyx is continuing in their quest to keep the H-8 alive by finally offering their multi-format disk-controller card. The H-8 isn't dead yet!

KAYPRO II. THE LAST COMPUTER DECISION YOU'LL HAVE TO MAKE.

We know that buying a business computer can be tough. An exhausting exercise in decision-making. You can decide on a basic 'starter system.' Then decide what optional hardware and optional software will make it fully functional. Then decide if you can afford all the optional extras.

Or, you can make it easy on yourself and make one decision. Kaypro II. A Kaypro II comes off our shelf complete, for about the same price as most 'starter systems.' $1595.

Complete with all the hardware you need. Complete with all the business applications software you need. And with capabilities so complete, you won't exhaust them for years to come.

As an authorized Kaypro dealer, let us show you how to make one computer decision work completely for you. Come in today for a complete Kaypro II demonstration.
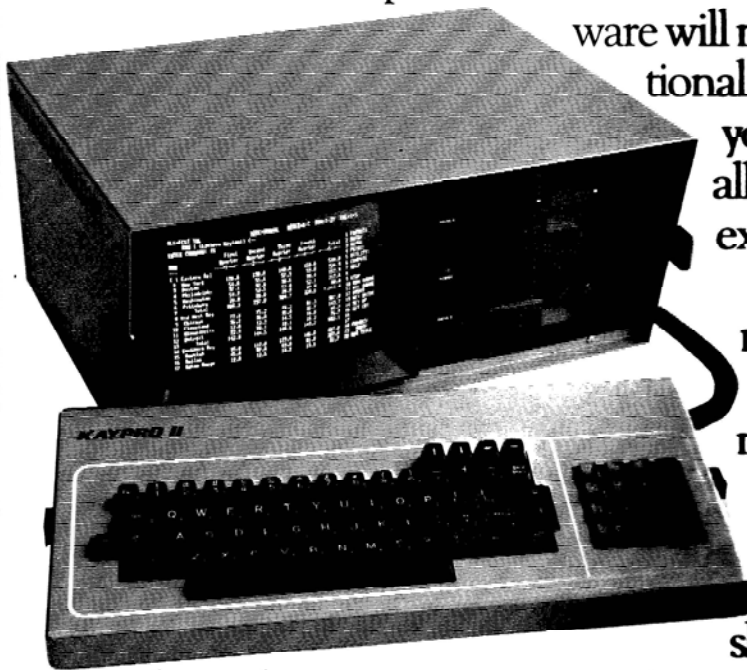
KAYPRO
The Complete Business Computer.

OSIG

NEW SOFTWARE

A total of 34 new packages or programs were added to the Osborne public domain library in November. A complete list of the new additions will be passed around at our meeting on Dec. 8th. Because of space limitations I will only describe four of these new programs here.

MENU is a handy dandy little assembly language program to display a menu of your choice on the screen. It was donated by Prof. Philip Ridler of Zimbabwe during his recent visit to the US. You make your choice by pressing a number 1-9. The computer then goes merrily on its way to carry out your wish. I used it to set up a games diskette for the kids. Each number causes a different game to load and run. By renaming it to AUTOST it automatically gives them a menu of games to play when they boot the disk. Any CP/M command line can be executed so let your imagination roll on!

PRTMENU is a program written in C and donated by Larry Tirone. It is a nice menu driven printer setup utility for the Epson MX-80. By going through the complete set of menus it is possible to painlessly set up your Epson for special forms or print modes. Among the items that can be modified are line spacing, form length, perforation skip, compressed /italic/double char., double strike, paper out disable and unidirectional printing. Screen prompts are clean and quick. The only drawback is that you have to run it each time you power up or change one setting. If you do varied types of printing on an Epson printer then this is for you. But if you regularly use WordStar with the same printer configuration it would be more efficient to install WS to do this automatically on boot.

REALEVAL is an MBASIC program originally downloaded from the Bearsville, NY RCPM and copied from some disks of Heath/Zenith public domain software. It takes basic information about a real estate purchase and calculates a few numbers to help you evaluate the deal. It takes the following information to calculate the results: Price, down payment, loan period, closing costs, interest rate, escrow costs, yearly taxes, heating costs, electricity costs, maintenance costs, insurance and finally the property income. The program then calculates cash flow, investment tax advantage, tax deductions, return on investment, equity growth and tax savings. If you have money left after buying your computer then this can help you decide how to spend it.

OREGON is an MBASIC program which simulates a trip over the Oregon Trail from Independence Missouri to Oregon City, Oregon in 1847. Your family of five will cover the 2000 mile Oregon Trail in 5-6 months --- if you make it alive. You had saved $900 for the trip and you've just paid $200 for a wagon. You will need to spend the rest of your money on the following items:
Oxen - You can spend $200-$300 on your team. The more you spend the faster you'll go because you'll have better animals.
Food - The more you have the less chance there is of getting sick!
Ammunition - $1 buys a belt of 50 bullets. You will need bullets for attacks by animals and bandits and for hunting food.
Clothing - This is especially important for the cold weather you'll encounter when crossing mountains.
Miscellaneous - This includes medicine and other things you'll need for sickness and emergency repairs.
There are no graphics and it is entirely prompt driven. Hope you make it!

OSIG Public Domain Catalog

The catalog of our public domain software is entirely disk-based. Because there are nearly 500 items in the library a paper listing would be too lengthy. The catalog is built around the HELP program, a public domain utility. The program is started by booting the disk or running AUTOST.COM. There are currently four classifications: Applications, Communications, Games and Utilities. Upon choosing a classification the program displays a list of the disks currently available. After choosing a particular disk you see a menu of the individual programs or packages on that disk. You can then view a short description of each entry on that disk. A sample entry follows:

```
MBREM   .BAS   2K                    DISK 23
```

This program will remove all REM strings from an MBASIC program. The input .BAS file must be in ASCII form (SAVEd with ,A). The output file is also in ASCII form.

A summary of the commands for HELP appears at the bottom of each screen. It is possible to go back to a menu, step back to a previous level menu, jump back to the first menu, exit to CP/M or continue paging through descriptions all with single keystrokes.

At this time the catalog fits on one double density disk or two single density disks. Make a copy at our next meeting and you can review the entire catalog at your leisure. Make a list of what you want to copy at the following meeting. This way you're sure to get what you want and there is less confusion in the process.

Tom Stilwell

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CMTUG NEWS

DID YOU MISS THESE?

The following articles, in random access order, have appeared in recent issues of non-TRS-80 magazines. You may be interested in some of them to support your TRS-80 habit.

Tim Daneliuk: "Review: Radio Shack TRS-80 Model 4P". Infoworld, 21Nov83, pp. 82-83. An evaluation of Tandy's transportable Model 4.

William E. Braun, Jr.: "Random House courseware teaches time, vocabulary". Infoworld, 24Oct83, pp. 35-37. A review of Word Count, Word Mount, and Telling Time, educational programs for TRS-80 Model III.

Dan Robinson: "Much more than a spelling checker". Creative Computing, Nov83, pp. 108, 111, 112. A review of Electric Webster, a spelling checker for TRS-80 Model I & III.

David H. Ahl: "Easy plotting on the TRS-80 Model 100 and NEC 8201". Creative Computing, Nov83, pp. 264, 265, 267. An article on using the Tandy lap-size portable in a plotting application, including program listing.

Owen Linzmayer: "The TRS-80 MC-10". Creative Computing, Oct83, pp. 39-41. A review of the new mini-Color Computer from Tandy.

Glenn A. Hart: "Businesspak+". Creative Computing, Oct83, pp. 79, 81, 82. A review of business software that extends the utility of the TRS-80 Model 100.

Owen Linzmayer: "Joust comes home". Creative Computing, Oct83, pp. 166-168. A review of Clash, an arcade game for TRS-80 MOdel I & III.

Matthew Walling & David Meyer: "Modular arithmetic and computer art". Creative Computing, Oct83, pp. 210, 212, 214, 217, 218, 220. This article includes a program listing for TRS-80 Color Computer.

John J. Anderson: "Print about printers". Creative Computing, Oct83, pp. 284, 286, 288. This column includes remarks about using TRS-80 LP-VI with SuperScripsit, plus a new-product notice about the TRS-80 DMP-120 printer.

Stephen B. Gray: "Book reviews". Creative Computing, Oct83, p. 323. The column includes a review of Don & Kurt Inman's Assembly language graphics for the TRS-80 Color Computer. See also Gray's regular column in Creative Computing, "TRS-80 Strings".

C.A. Johnson: "Zorloff II - word processor extraordinaire". Creative Computing, Nov83, pp. 104, 107. A review of the updated word processing software for TRS-80 Model I, III and 4.

David H. Ahl: "Notebook computing". Creative Computing, Nov83, pp. 312-313. The first appearance of a monthly column on the new lap-size portable, including the TRS-80 Model 100.

Stephen B. Gray: "TRS-80 Strings". Creative Computing, Nov83, pp. 324, 326, 328, 330. The November column features a long discussion of Profile III+.

CMTUG PRESIDENT'S CORNER
by Harold Haughton

I hope all of you have received your survey cards, and that you will return them promptly. With only 20% of the cards returned at this writing, we are starting to get a picture of our membership. The survey (so far) shows that all members have gone to disk drives. Quite a few own more than one TRS-80 computer with about half still using the Model I, the other half using Model IIIs, and two Model 4 owners. Most use their computers for hobby or personal reasons, 40% for business and 20 % for educational purposes.

Those that filled in the bottom part of the survey form indicated they were pleased with our new meeting style, and really liked the new newsletter. There were no negative responses to either of these questions.

The result of this survey will help the officers guide the programs and the meeting agenda. Please fill out and mail them, or better still, bring them to the next meeting. The survey also shows there are people out there asking for our help. If we get enough responses, we will set up SIGs. That is what our club is all about.

The Lobo Systems Max-80

by Greg Martin

I received my MAX-80 after impatiently waiting for two
months, only slightly behind the promised delivery.
United Parcel delivered serial number 104 to my door.
Ordering a computer sight unseen-----and worse,
unreviewed, had my knees quaking for the full duration;
that I did so was due to Lobo Systems excellent
reputation for their Model I expansion interface, and
their association with Logical Systems, the group
responsible for LDOS. I'm happy to say that the MAX-80
is a fine piece of hardware, and provides most of what
is advertised.

Note my slight demurral: the MAX-80 is not totally
compatible with Model III software. The reason is that
the input/output is memory mapped like the Model I, and
not port addressed, like the Model III. The MAX-80
attains its compatibility with both LDOS and CP/M by
using a four kilobyte section of 'movable memory.'
This contains all the memory mapped i/o, including
screen memory. For LDOS operation, the block is
located at 3000H, and for CP/M, somewhere up in high
memory. As a consequence, whenever software addresses
a port directly (ie, out FEH), nothing happens. This
tends to make a point for anyone who hasn't figured it
out yet--using standard DOS calls rather than directly
addressing hardware makes for greater compatibility
between systems. That's the idea CP/M is based on.

This problem notwithstanding, I am greatly encouraged
by the degree of compatibility with existing Model III
programs. The reason is that anything Logical Systems
has published a patch for, such as Visicalc or
Scripsit, is patched to use LDOS DOS calls, in order
that the user can use all of LDOS' filters, etc. This
means anything supported by LDOS runs on the MAX-80.
Since LDOS is now being marketed by Tandy, one can
assume with some degree of confidence that just about
everything released by Tandy is going to be supported;
and with LDOS as Tandy's better DOS, everything anyone
else writes will have to run on LDOS. Even though many
games won't run on the MAX, I'm very satisfied with its
degree of compatibility. Readers may correctly infer
that I am an enthusiastic LDOS user already.

General Hardware Considerations:

RAM: the MA-80 supports up to 128k of dynamic RAM, in
the new 64k chips. Unlike the IBM, there is no ninth
bit for parity. The memory is bank selected in 32k
segments. This bank select feature is currently
supported both by CP/M and LDOS as a ramdrive. The
selection is done by poking values to memory locations
in the 4k movable block, similar to controlling map
types in the Color Computer.

CPU: the CPU is a fast Z80B, running at 5.07
megahertz. Arcade games that can be loaded are too
fast to play. Cursor motion and scrolling are super
fast, and may have to be slowed down in many programs.
It just perks along over twice as fast as the
unmodified Model III.

I/O: there are two serial ports and one Centronics
type parallel port. Some of you will recall problems
in trying to get the Model III to put out a carriage
return without a line feed. No problem--the Max has a
switch on the printer card connector, easily accessible
from the rear, which will short the appropriate pins or
leave them open.

Disk Controller: the controller supports up to 8
floppies, four five inchers and four eight inchers.
One nice feature is that it will support double sided
drives either with the fourth drive signal as side
select, or a real side select signal. This allows the
option of using drives already configured for Mod I/Mod
III, limiting you to three drives, or configuring
drives for side select, giving you up to four five inch
double sided drives. The side select mode is also
switched from an accessible location above the five
inch card edge. There is also an easily accessible dip
switch for selecting the boot drive, which can be one
of the five or eight inch floppies, or a hard drive.
The MAX has a Shugart compatible hard disk interface
built in. Lobo notes that if you use anything other
than their "Universal Controller" hard disk system, you
will have to rewrite the driver software, but they will
supply documentation on their controller specifications
to anyone interested (for a nominal charge).

Video: It has a composite video output, requiring a
monitor with a 1 volt, 75 ohm input. For CP/M, it
supports 80 by 24 characters; for LDOS, 64 by 16. It
also supports double wide characters in each mode. The
character set is user programmable; it is stored (at
least under CP/M) as an assembly source file. From the
bizarre and detailed display on monitor when the system
goes off to lala land, it is capable of supporting
raster type full graphic display (ok, I found the
phrase in the Hitachi spec sheet in the back of the
manual.)
Graphics, other than block graphics under LDOS, are not
software supported under either system. There is a
MAX-80 users group, however, and there are some
graphics support programs in the Maximul library.
(Note, because of the "movable block" concept, video RAM
sits right where it's supposed to under LDOS, for all
you peekers and pokers.)

Keyboard: The MAX has a full 76 key keyboard with a
numeric keypad and four function keys (not supported by
either DOS at this time). The overall feel is very
good, and the layout is excellent: one of my complaints
about the Model I and III has always been the cursor
control locations. Here they are grouped together on
the right hand side of the keyboard. The return key
has been moved up a row, but I don't seem to have any
problem with it, and I am a (slow) touch typist. The
character font includes all the curly braces and
brackets, underlining, reverse slashes, escape and
control characters. Characters we had to go through
two key sequences to get on the Radio Shack systems.
The entire unit is enclosed in the keyboard housing,
which is pleasing off-white plastic, with the pigment
impregnated in the plastic.

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Although sight unseen I feared this might be a tinny little thing like the game computers, the overall apparent quality is excellent, from the external appearance, through the holes in the back and over the gold edge connectors, right down to the quality pc board and bypass capacitors.

Documentation: The "preliminary" manual is by any standard, excellent. It is, however, a technical manual. It contains specification sheets on all the major chips, a schematic, board diagrams, specific information on how to configure various types of drives, detailed information on the movable input output block and bank selection,, all you could ask for and never could find for the TRS-80's. The operator's guide section gives a discussion of how to hook up the system initially, and how to configure your CP/M system, referring you to the Osborne CP/M User Guide for further detail. Although I love the manual because it has the answers to all the technical questions I might otherwise wonder about, it would be difficult for a first time user to confront it. Lobo Systems says they will not finalize the manual until fall of 1983, however. Ironically, the manual seems specifically directed at OEMs and systems integrators, but demand has been so great that they have "no immediate plans of marketing by other than mail order."

Software Considerations:

CP/M: I had never used CP/M before getting it with this system, and I must say I was very favorably impressed with it as an operating system. Version 2.2 (supplied) has excellent copy utilities, device independence, and a job control language of sorts. Aside from the syntax being very different from the TRS-80 systems I'm used to, it's not too hard to use, and quite flexible. Lobo Systems provides some excellent utilities, and the system can be configured for default single density recognition of Osborne, Xerox, and Omikron formats--and will even format diskettes for those systems. They also propose to support more system formats as owners and others let them know of their needs (not a custom service for all requests, but for many frequently used formats). For eight inch drives, both standard single density and a double density format are supported. Authors and publishers may note that this one system opens up a lot of markets to them. Another nice feature of the CP/M system is that it supports use of the upper 64k as a ramdrive, making super fast compile and assembly times possible. The 3.0 version of CP/M, soon to be released, is to be provided at no extra cost to MAX owners who already have 2.2, and will have all sorts of bells and whistles, including bank select of the total memory and (the buzzword of the day) "user friendliness."

LDOS: Logical Systems hasn't produced a system taking full advantage of the capabilities of the MAX-80, but anything LDOS normally does, it does on the MAX. That speaks pretty well for it. What they've done is taken Microsoft Basic and rewritten it for the MAX-80

hardware, allowing software that makes rom calls to validly make most of the same calls. The disk i/o routines have been rewritten as necessary, but the dos vectors and entry points have been left standard. This allows a great deal of software, especially that written for or patched for LDOS, to run. They have also supported the real time clock with reset routines, and use it for power up and dated files. It's nice not having to enter the date all the time, and still have it accurate.

User software under LDOS: I have been testing a number of different programs under the MAX-80 system, and can report on some that do work and some that don't. Model I Visicalc patched for LDOS works fine, and minidos continues to be a nice feature with it. Alcor Pascal works well with it. and the ramdrive utility from Maximul cuts compile times down by about one half. EDTASM Plus (Microsoft) works well. The Sysgen (saves a system configuration as a command file) and Drive5 (creates a ramdrive in high memory-but not in the extra 64k) utilities sold by TAS seem to work fine (but don't use Drive5 with Alcor Pascal--you end up in debug as soon as you refer to a file on the ramdrive). LC and EDAS by Misosys work fine. Lazy Writer works well, but be sure to run CHANGELW to slow down the repeat function and the cursor motion; the printer driver must also be rewritten. (See below. Say, has anyone rewritten the driver successfully to use the LDOS printer filter and spooler?)

Overall Impressions and Recommendations:

It should be clear by now that I am very much impressed with Lobo Systems' new computer, and I recommend it highly to anyone, with the reservation that it may be difficult for a beginner to learn the system without additional assistance. The overall quality of the product and the apparent degree of commitment by Lobo to user support is amazing, considering what we have been forced to accept in the past. What may be especially remarkable is the cost of the system ($820-990 for the cpu/board, depending on ram and DOS options) when compared to the cost of add ons giving 64k CP/M and 80 column video capability to the Model I or III. For about the same price you get a second system!

LOGICAL REASONING
by John R. Olsen, Jr.

Learning CAN be fun...with educational software that's designed as it should be! This challenging and entertaining learning program is arranged logically, in an easy-to-follow, step-by-step format...includes all the building blocks for developing essential math and science skills in 12 compact lessons!

* PROGRESS AT YOUR OWN PACE. Master one lesson and get an entry key for the next one.

* A pre-test lets you determine your start level, a final test shows how much you've learned.

* Encourages active participation between the user and machine by using interactive dialogue.

* Uses GRAPHIC DIAGRAMS to reinforce and explain concepts.

Logical Reasoning covers a wide range of topics including Conditional Statements, Hypotheses, Conclusions, Varied and Unvaried Deductions and Definitions. Only $19.95 on a TRS80 self-booting diskette that we believe to be protected (not specified by vendor).

ANALOGIES
by Frederick Burggraf

Analogies is a fascinating and absorbing game and a powerful educational tool. This ready-to-run program that gives you a chance to show how quickly you can identify the missing word in analogies like "rock is to ave as ice is to?" (the answer, of course, is "water"). Ranging from easy questions to more difficult ones, this is a word game that can cover an amazing variety of subjects: geography, mathematics, English, history, literature and astronomy. You can even CREATE your own analogies on the subject and difficulty level YOU choose.

Fun to play, and challenging for all ages, 12 and above. Analogies is designed in the same format used – so many standardized tests from College Boards to job aptitude tests. Once the principles of analogies have been mastered, you'll be amazed at how test scores go up! Program bestows ratings from "Beginner" to "Anthology Master".

Analogies is only $19.95 on a TRS80 protected format diskette.

Both programs are available now from The Alternate Source! Phone (517) 482-8270 and ARRANGE FOR A DEMO!

COMPUTERIZED TYPESETTING!!!

The Alternate Source is now installing "The Alternate Connection", a "black box" interface that lets your computer talk with the following model typesetters:

AM COMP/SET 500, 510, 507, 3500, 3510, 4500 and 4500

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CompuGraphic Editwriter 7500

We are interested in adapting this capability to other systems (both computer and typesetter). We are specifically interested in customers within a couple hours of the mid-Michigan area so that we may provide custom software and service, as the situation requires.

The Alternate Connection does not require the purchase of an additional, expensive RS-232 unit for your typesetter. In most cases, on-site installation can be completed for under $1000. For further information, phone (517) 482-8270 and ask for Charley.

The Alternate Source
704 North Pennsylvania Avenue
Lansing, MI 48906
(517) 482-8270

WHAT'S A COMPUTER ?
by Harold Haughton

In this article I think I'll do a little bitching about our beloved Computer, the TRS-80 and some of the screwy things we have to put up with. In some cases, TANDY is real smart in what they have accomplished. In others, they really look quite dumb. I don't know if their oversights were on purpose or not, but they sure did not do much forward planning.

For instance: Why does TANDY make you answer the DATE and TIME question every time you boot up TRSDOS ? I for one do not need it every time I boot up, and if I did want it, there are ways to put it in, later. To me, this is just an unnecessary maneuver and a waste of time. Other DOSes do not make you do this.

When their Engineers were designing the special character group, why did they invent special character number 252 ? I know the Computer uses it, internally, but it could just as well have been an upside down question mark. We could then use it in text. It is the only character missing for writing text in Spanish.

Another lack of forward planning: When running a program you just developed, and you encounter an error, the dumb thing will come up with some thing like, 'ERROR 24'. You have the option of finding out what ERROR 24 means with a couple of key strokes. Why did they not print it out in words in the first place ?

Some Disk Operating Systems will let you copy other systems onto theirs. Not so with TRSDOS. They give you their system when you buy their Computer and they do not want you to use another system. Probably, most Radio Shack Computer owners, use a system other than TRSDOS most of the time for some of the reasons I've stated above.

Later on in this article, I'm going to show you how you can easily overcome some of these TRSDOS problems.

Did you ever wonder how and why TANDY got into the Computer business in the first place. If you will think back to the late 60's and early 70's, Tandy's Radio Shack division was doing a thriving business in supplying the hobbist with Do-Dads in the electronic field. They were also well known for their SOUND Equipment Department. They sold a Computer keyboard in kit form and chips to make up a simple Computer, but they did not offer a complete Computer in kit form. In other words, at that time, they had no Computer

manufacturing or engineering experience.

IBM was the leader in Computer manufacturing, although they were in the Main Frame Computer business. No one sold a Micro-computer in package form, but they were available in kit form from many sources. Many Lansing area people had built one (including yours truly, using Radio Shack parts).

At this time TANDY had some smarts as they (believe it or not) contracted with IBM to help them design and build a small Computer in package form, ready to plug in and run. At that time, the 8080 CPU was most popular and the Computer was to be designed around it. No sooner was the Computer designed when INTEL came out with the Z-80 CPU. Back to the drawing board went IBM with the result, the Model one was invented.

To make a long story, short, that Model One you and I bought was a product of IBM. The Model One caught on like a house afire and no doubt this got IBM to produce a Microcomputer of their own

I believe the above tale is true. A couple of months ago I had the good fortune to set down at lunch with a retired IBM Computer engineer who claims to have worked on the TANDY project.

Although your manual doesn't tell you how, your Computer has the facilities to transfer data from TRSDOS to another system. Before you try any of the tricks I'm about to describe, be sure and back up all disks as an error in entry could wipe out your complete disk.

To transfer a file from TRSDOS to DosPlus, follow these simple procedures:

(1) Make a backup copy of both disks.
(2) Purge all files in the DosPlus disk
(3) Insert the TRSDOS disk in drive one
(4) Insert the DosPlus disk in drive zero
(5) Reboot system. (hit reset button)
(6) TYPE: CAT :1 (T) <enter> (note spaces)
(7) TYPE: CONVERT :1 :0 <enter> (note spaces)
(8) You will be ask two questions. Answer both with NO. Now just set back and watch

your Computer go to work for you.

To eliminate having to answer the date and time question each time you boot up TRSDOS=DOS, enter the following in DOS READY:

(1) Backup a TRSDOS system disk

(2)   Use the PATCH command by typing as
follows:
        (3)   PATCH   #0
(ADD=4EB8,FIND=213B51,CHG=C3394F) <ENTER>

    To cause the Computer to say in so many words what
the error is instead of a stupid number, use the
following patch:
        (1) Use the same disk as above
        (2) TYPE: PATCH #4 (ADD=4E28,FIND=20,CHG=18)
<ENTER>
        (3) Note spaces in both above examples

    You should have no problem entering these patches.
 However, if you prefer, bring a backed up TRSDOS
system disk to the next meeting and I'll be glad to do
it for you.

MECC PROGRAMS FOR TRS-80

    Forty MECC products will be available soon for TRS-80
computers.   MECC, the Minnesota Educational Computing
Consortium, is known nationally for its wide-reaching and
highly developed courseware. Until recently, however, the
programs have been available primarily for Apple and Atari
computers. Twenty of the TRS-80 programs will be for Model
III/4 machines, and twenty   for the   Color Computer.
Seventeen will be available by mid-November, with all
programs to be converted by March 1984.

    The announcement also mentioned that 100 MECC programs
would be converted for use on Commodore 64 machines, and
thirty for the IBM PC.

Converting Programs from Model III Disk BASIC to Model 4 Disk BASIC

By Randy Rife   TRS-80 Microcomputer News, November 1983

    TRS-80 Model III programs will run without modifications on the new TRS-80 Model 4. However, when we do so, the Model 4 works just like a Model III and our old programs cannot use the 80-character screen width, sound, MEMDISK, and other features unique to the Model 4. TRSDOS 6.0 has a convert utility that will transfer any disk file (including a BASIC program) from TRSDOS 1.3, but there is a catch.

    BASIC programs are normally stored in compressed format on the diskette with BASIC keywords reduced to a single byte (these are often called tokens). When TRSDOS 6.0 converts a file from TRSDOS 1.3, it copies the bytes in the file as opposed to the keywords. The problem with this process is that TRSDOS 6.0 BASIC uses different tokens for storing keywords; e.g., when converted, REM is stored as LIST, GOSUB is stored as PRINT, etc.

    To overcome this problem, BASIC programs must be stored in ASCII format before using the convert utility in TRSDOS 6.0.

    Here is a sample session to convert a BASIC program (named TEST) to TRSDOS 6.0 Disk BASIC.

    Save the program on the TRSDOS 1.3 diskette in ASCII format by entering:

    SAVE"TEST/ASC",A

    Next, put that TRSDOS 1.3 diskette into Drive 1, put a TRSDOS 6.0 diskette into Dive 0 and press (RESET). At TRSDOS Ready, enter

    CONV TEST/ASC:1 :0

    When that is finished, enter BASIC and then enter LOAD "TEST/ASC". List, edit, and run the program as needed. When satisfied with the program, save it back onto the diskette and kill TEST/ASC.

    The convert process will only create a loadable BASIC program; it does not correct any syntax or logical errors. Keep in mind that TRSDOS 6.0 Disk BASIC requires spaces after keywords; e.g., GOSUB100 will not work. Some functions have been replaced; e.g., CMD"D:0" is now SYSTEM"DIR :0", and other statements have been eliminated; e.g., SET and RESET do not exist in TRSDOS 6.0 Disk BASIC.

    This conversion process should only be done on programs written by yourself and after you have a good understanding of TRSDOS 6.0 Disk BASIC.   ▲
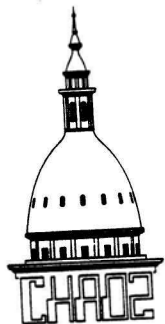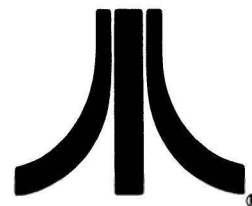
C.H.A.O.S. WELCOMES YOU
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C.H.A.O.S. IS:

C.H.A.O.S. is the Capitol Hill Atari Owners Society. CHAOS is the largest computer users group in the Lansing area. CHAOS meets every third Saturday in the Foster Community Center (200 N. Foster, behind the Dunkin Donuts). The meetings start at 9 AM and end around 1 PM. The presentations at meetings include new software, new hardware, and news. Business is limited at general meetings to make the meetings more enjoyable.

C.H.A.O.S. MEETINGS ARE:
FUN, EXCITING, INFORMATIVE, AND CHAOTIC

You will have to see a CHAOS meeting to believe it. The discussions are lively, with lots of news and information.   The presentations are of general interest. The speakers arrange their presentations to be understood by the beginners in the group as well as the experts.

The presentations at any meeting may include word processors, games, data bases, educational applications, utilities, hardware, hardware modifications, and hardware enhancements. Many people did not realize they could upgrade their Atari 400 to 48K or 64K before they came to a CHAOS meeting.

There are experts and beginners in CHAOS and there are Special Interest Groups so people with similar interests can learn together.

C.H.A.O.S. IS YOUR BEST COMPUTER PERIPHERAL

In addition to receiving a monthly newsletter that will keep you informed of local, national, and international events in computers, you will have access to the largest Atari public domain library of programs in the world.
C.H.A.O.S. HAS OVER 600 PROGRAMS IN ITS LIBRARY.
The CHAOS library is growing every day. This can save you a great deal of time and money. Programs that you write can be added to the CHAOS library. If you would like a listing of the programs in our current library, please send a large self-addressed, stamped envelope.   Include an extra 50¢ if you are not a CHAOS member to cover printing costs. Mail your request to CHAOS, PO BOX 16132, Lansing, Mi 48901.

C.H.A.O.S. RUNS A BULLETIN BOARD SYSTEM

CHAOS, in conjunction with the Library of Michigan, runs a BBS. A BBS is a Bulletin Board System that you can dial into if you own a modem. The telephone number for this BBS is 373-6788.   The BBS provides a means of leaving mesages to other computer owners and a means of obtaining software from the CHAOS program library.

C.H.A.O.S. PUBLICATIONS LIBRARY

CHAOS has many books and other publications about the Atari computers that can be checked out by members. Each month CHAOS receives newsletters from other Atari clubs from around the world.

HOW TO JOIN C.H.A.O.S.

If you would like to join C.H.A.O.S. then fill out the Membership Application form found somewhere in this newsletter. Send the application with a check for dues to:

```
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```

C.H.A.O.S. NEWSLETTER EXCHANGE

If your Atari users group would like to exchange newsletters, then please be sure you mail your newsletter to the proper address.   The return adress on this newsletter is not the CHAOS exchange address. The individual clubs within the consortium are responsible for exchanges with other groups and are billed accordingly. Any information for chaos should be addressed to:

```
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```

Message from the Chief
by Ike Hudson

You may be asking yourself, who is this Chief? Well, the name CHAOS was the result of the imaginations of two very avid "Get Smart" fans. As a few of you will remember, Kaos (CHAOS) and Control were the two organizations on this show. The leaders of these two organizations were called the Chief.

In memory of this long lost and very much missed show, I am assuming the title of Chief. I think the meetings of CHAOS are chaotic enough to justify this.

There are a variety of rumors about new equipment, new computers, and folding companies. The great god Ibm has announced their latest attempt at becoming the big brother of the computer world. The popcorn, or peanut is not a real cracker jack. The reviews so far are less than the thundering applause that our wonderful god Ibm was expecting. The delivery date of this cracker jack is not until after Christmas. Ibm expects everyone to wait for this prodigal son and then beg to buy them. I guess there are always those cultists out there who will follow this great god to the end of the world.

I would buy one before i would buy an Apple IIe, but I wouldn't buy an Apple IIe anyway. If Atari can start delivering the 800XL and the 1400XL, then they can capture much of the market before the little tin god Ibm starts cranking out their corn and nuts. If not, then I look forward to hearing that Atari has bitten the dust. This would be especially sad since the Atari is the best computer on the market for twice the price.

DECEMBER MEETING

The December meeting will be a big one. There will be someone at the door to insure that members are the only people admitted. Thie meeting will be our Cristmas give-away meeting. Everyone will be allowed to copy up to five disks with no copy fee. If you don't have disks, or if there is not enough equipment, then we will sell the already made club disks for only $2.00 each. That's the cost of a disk, and a low cost at that.

We will also have several door prizes. One will be the Stick Station by Skywriter. Another will be Sands of Egypt by Datasoft. You have to be there to win, so make plans now.

Be ready for other surprises at the December meeting. Anything could happen.

The Stick Station
A Review by Ike Hudson

We recently received a product called the "Stick Station" made by Skywriter Company. It will be selling for $14.95 through a television offer in the near future. Since it was sent to the club free, I will take the time to review it. It will then be given as a door prize to some lucky member at the December meeting. You must be present to win!

The Stick Station is a large heavy piece of wood. It measures about 6" X 18" X 2". It has a hole cut in the middle that is just the right size for an Atari joystick. It is a good snug fit. At first I thought I would not be able to get my joystick back, but then managed to pry it out.

The real question is how well does it work? It works fairly well. It is heavy, and anchors the joystick, but it tended to slide around on my desk. I found some rubber feet that were intended for something else and attached them to the bottom. The Stick Station is now very stable. It is almost like playing on an arcade machine. It is much better than any other method of anchoring a joystick that I have seen.

I found that I did not get as tired using the Stick Station. It was also easier to get the joystick to respond. My scores may have been better, but they were so low to begin with that it was hard to tell.

I have it on good authority that the wood alone is almost worth the price of the stick station. I doubt that the pirates will try to copy it. It is a good item to have. You will want to try it before you buy it. The biggest drawback I found was space. My desk is usually very cluttered. I don't have enough room for it. I may buy one when I find a good place for my son's computer. It has a very stabilizing effect.

CHAOS LIBRARY PRICES ARE LOW!

The CHAOS public domain library is a club service for the members of CHAOS. The librarian trades with other clubs and accepts programs from our members in order to provide the best of the public domain for our members. CHAOS has the largest Atari public domain library in the world.

In order to encourage the use of our library, we keep the prices as low as possible. The prices, until further notice, will now be:

	CHAOS MEMBERS & OTHER CLUBS	NON MEMBERS
DISK & COPY FEE	$3.00	$4.00
DISK ONLY use copy credit	$2.00	N/A
COPY FEE ONLY purchaser disk	$2.00	$2.50

Shipping will be $1.50 for every 5 disks. Copies will be made to only one side of the disk unless the purchaser provides prepunched (notch & timing holes), and preformatted disks. A 10% price reduction will be granted for single purchases of more than 10 disks. Clubs must purchase at least 5 different disks to qualify for member prices.

Schools will be given free copy fees for all disks except games when club disks are used. Schools will be charged the same disk fee as members. If a school chooses to use their own disks, the copy fee will be reduced to $1.00 per disk.

If you want to keep the largest and the best library, then support the library. The prices are low, and the programs are good. Disks will be available at meetings, so bring your checkbook.

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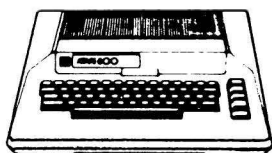
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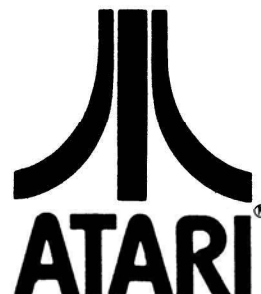|	
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THE COMMODORE 64 STORY

by William Frank
Houston Atari Computer
Enthusiasts

The Commodore 64 is a remarkable computer. Commodore will undoubtedly fulfill their boast of selling over 1 million of them in 1983. It is currently selling in Houston for $199. On the surface its capabilities match that of an Atari 800 ($299 after rebate) or an Apple IIe ($995 when on sale) or an IBM PC ($1990 with 64K). What is being said and written about the Commodore 64? Following is a very incomplete compendium:

1. "On July 4 our store has 12 Commodores returned as defective. Most common problem was a defective RESTORE key." Clerk at Houston discount store.

2. ". . .they are so cheap! I do mean cheap!!! To give you an idea of what I am talking about, I have received 7 Commodore 64's and out of the 7 I could sell only 1. The others have power supply problems etc." Ric Wails, June 1983 Tinker Atari Computer Enthusiasts newsletter.

3. "We have a 50% return rate on Commodore 64's." Computer department manager, Houston video store.

4. "I had a customer who insisted upon a Commodore 64, so I called my distributor to get one. I was told. . ."We're all out, we have a truckload coming in later this week, but they're all spoken for as exchanges for dealer returns."" Houston store owner.

5. "In a past article I referred to Commodore as the 'Computer a Month Company'. It seemed like they were coming out with a new machine or a revised model at least once a month. This trend has not abated. The 64 is now in its third ROM revision. I guess they will get it right sooner or later." Ron Kushnier (CBM REPORT) in June 1983 The Data Bus - Newsletter of the Philadelphia Area Computer Society.

6. ". . .the question we're asked most about the Commodore 64. The problem ... has become known as 'sparkle'. . . .As a matter of fact COMPUTE recently purchased two 64's for testing purposes, and one has a very severe 'sparkle' problem. In answer to your question on repairs, Commodore has no set policy in this area." Readers Feedback in July 1983 Compute! magazine, p. 10.

7. "BOSTON-Commodore Business machines Inc. filed a $30 million suit in federal court here alleging that a unit of AMP Inc., Harrisburg, Pa., delivered defective keyboards. . ." "The suite alleges that Commodore, a unit of Commodore International Ltd., ordered 100,000 keyboards from AMP Keyboard Technologies Inc. of Burlington, Mass., on May 14, 1982. . ." ". . .35,000 keyboards were assembled but only 15,000 were sold after it became clear that the AMP keyboards were defective. . ." July 8, 1983 Wall Street Journal

8. "My biggest complaint is with Commodore's quality control. I had to return two computers before I got one that didn't have display problems. Evidently, the fault was in the video output or the RF modulator circuitry." Stan Wszola in July 1983 BYTE, p. 246.

9. "The reputation of the 64 has been clouded by reservations about the quality of its video. We have received inquires from all over this country and beyond,. . ." John J. Anderson in August 1983 Creative Computing, p.229.

LOCAL UPDATE

The local record for most Commodore 64 computers returned is six. It is held by a member of the local Commodore club. From what I understand, this is not that unusual. I wonder how many people out there have a piece of junk, but think it is working the way it is supposed to.

Basic User Group
By M. Aldrich

The Oct 20 and Nov 03 BUG meetings were held in room 210 at the Foster Community Center and had a pretty fair turnout.

Oct 20, 1983 meeting:

The Basic commands discussed on the Oct 06 meeting were reviewed and the INPUT and IF THEN commands were also discussed. Mike put a program he had written up on the board and volunteers sat down to one of the computers brought in and typed it in. This program demonstrated the BASIC commands covered up to this point and gave the group a chance to test out their command entering abilities and to see the commands in action. The programs were run and questions were asked and answered.

Nov 03, 1983 meeting:

Some new BASIC commands were covered at this meeting. The GOSUB RETURN, FOR NEXT, DATA READ, INT, and RND were discussed and small programs were given as examples. A program assignment / Questionaire combination sheet was handed out for individuals to do (mostly for the next meeting). The questionaire was to get suggestions on how to make the class better, to find out what kinds of programs people would like to write and what kinds of things people would like to do with their computer. The program assignment was to write 8 little programs (most 3 to 10 statements) long which would use the basic commands covered. Within 15 minutes a new member to the group had completed the first 2 programs. She then typed them into the computer and TADA!! they ran. At the next meeting the last 6 programs will (hopefully) be done and entered into the computers for exercise purposes.

BUG meetings are scheduled for the 1st and 3rd Thursdays of each month from 7:00pm to 9:00pm. All members wanting to learn how to program in Basic and/or just plain learn to use their Atari are welcome to attend. The Basic User Group will be held at Foster Community Center, Room 210 (if possible) 200 N. Foster St. Lansing, Michigan.

SCREEN PRINTER FOR AMODEM TERMINAL PROGRAM

by Bill Enslin

This past spring I entered the fascinating world of telecommunications. I borrowed a modem from work and constructed a modem cable per instructions in a magazine article. Then, I typed into my Atari 800 the AMODEM 4.2 telecommunications program written by Jim Steinbrecher, a member of the Michigan Atari Computer Enthusiasts (M.A.C.E.) group. A listing of the program appeared in the January 1983 issue of the M.A.C.E. Journal, and documentation was provided in the December 1982 issue.

I was quite excited when I first made contact with our own CHAOS BBS (Bulletin Board System), and a good measure of that excitement is still with me today. Since this spring, I have spent a few hours each weekend uncovering the mysteries of the ABC's of the BBS's. First, came the "kid-in-the-candy-store" fun of getting all those programs (watching each and every byte of program code magically appear on my T.V. screen). Now, I have the self-assured confidence of an expert BBS user, and can finally repay my debt by sending programs the other way.

I must attest that through all of my boneheaded mistakes and asinine errors, the AMODEM program kept on delivering new software and opening my eyes and mind to the fun and rewards of communicating with many of the bulletin board systems in our area. The AMODEM program is one of the most useful public-domain programs I've used, and is by far my most often called upon program.

AMODEM does however have one limitation which motivated me to set my young programming skills to work; that is the lack of a screen printer routine. The program does allow you to save screen text in memory by setting up file specifications under the CAPTURE option, and then toggle the capture of data on and off with the OPTION key. The information stored in memory is sent to your filespec by pressing SELECT and then the "D" key to activate the DUMP utility. If you specify "P:" as the device name of your filespec, then the captured data will be sent to the printer.

This procedure definitely works and many users may be completely satisfied with this printing capability. However, I find it inconvenient to have to set up a file specification, toggle the capture option, and then dump the data to the printer -- when all I want is a printed copy of one 6-line message. The procedure doesn't allow you to view text first and then decide if you want a printed copy of it; you must make your decision before you receive the data. Unless you're a clairvoyant, this can be a time-consuming process; especially when using the message file of a BBS. You must either capture and print all messages within a given sequence; or first review the messages, noting which ones you want a copy of, and then request the re-transmission of these meassages -- after you have setup the filespec to send the data to the printer. There is a quicker and easier way to get printed copy of screen data.

The following few lines of code provide a fast and convenient alternative for getting hardcopy. The routine uses the forced read capability of the Atari computer; which is documented in Frank C. Jones's article, "Using the Atari Forced Read Mode" (Compute!'s Second Book of Atari, pp. 26-32). I have tried several other ways of dumping screen data but the forced read mode provided the fastest routine.

The major problem that had to be solved was finding a way to avoid disjointed text (which will occur if you don't compensate for the screen scrolling). My ignorance of the Atari's operating system lead me down many scrolling avenues of disjointed text. It was sometime before I realized that you couldn't prevent scrolling; and it wasn't an easy matter for a novice, like myself, to find a solution to this dilemma — but, I think "trial-and-error" research has paid off. The routine marks the cursor's positon with a special character prior to going into the forced read mode. After dumping the screen, the routine determines the current location of the special character, and then returns the cursor to that location. The screen may still scroll but the cursor will always return to the correct position and avoid disjointed text.

The routine allows you to get a printed copy of screen text whenever data transmission is halted; such as when the BBS is waiting for your next command, or when you stop transmission by hitting CTRL-S. To activate the printer routine all you have to do is hold down the OPTION key and press SELECT. A large period "●" will appear at the current cursor position. The cursor will then go to the top left corner of the screen and will proceed to travel down the left side of the screen -- reading one row of data at a time. When the cursor reaches the last line of text, it will move over one column to mark the last row that was printed, and another cursor will return to replace the large period marker. The ghost or extra cursor on the left margin of screen text is a reminder of where the last line was printed. If the last logical line of text extends beyond one physical line, the screen will scroll upwards. The screen dump routine will determine how many lines the screen has scrolled by locating the new location of the large period marker. Once it's located, the cursor is returned to the correct location; preventing disjointed text when transmission is resumed. Note: Remember to hit CTRL-Q to resume data transmission if you stopped it by pressing CTRL-S.

The screen dump routine is especially useful for printing messages from the message base of a BBS; filenames of programs available for downloading; and the documentation for download files which contain important instructions for the use of a specific program. The printer routine is also very fast; and speed is obviously important to anyone making long distance phone calls on a thin budget. Terminal operations (data transmission) can begin again as soon as the forced-read cursor hits the last line of text and the period marker vanishes -- that's about three seconds -- just enough time for a quick sip of coffee! It may take longer if your printer doesn't have a print buffer. Speed is obviously important for any one

making long distance phone calls on a thin budget. For those impatient souls, please note that all screen data must go to the printer before data transmission can resume; because no other input/output channel can be open when the AMODEM program is in terminal mode (Atari concurrent I/O mode).

This routine works with the original AMODEM program (Version 4.2) and may not work with other versions or revisions of the program. Please be aware that typing in this routine may cause a system crash or change the AMODEM program code. WARNING! Do not run the revised program until you have saved it to disk and do not change program code in memory immediately after you have run the program. It's safer to reLOAD the program and then change code lines. Always have another copy of the original program on another disk. If you plan to type in the routine, I suggest that you type the program lines by themself; then LIST them to disk under a different name, such as "AMODPTR". After carefully verifying that the program code is correct, merge (ENTER) the AMODPTR file with a copy of the AMODEM program in memory; and then SAVE it to disk before you run it.

I've uploaded a copy of the AMODPTR routine and a brief documentation file called AMODPTR.DOC to the CHAOS BBS (phone number 517-373-6788); as well as several other BBS's in the area. I suggest that if you're in the Lansing area (or have an unlimited long distance phone cache) that you download the AMODPTR file and ENTER it into a copy of the AMODEM program instead of typing it yourself.

I hope that you find this screen printer routine useful. In any event, happy modeming and see you on the BBS. Signing off now ♥♦■.

AMODPTR ROUTINE

```
5 OPEN #5,13,0,"E:":DIM LINE$(128)
1005 PRINT " OPTION + SELECT = LPRINT"
1215 IF C=1 THEN 20000
20000 CLOSE #MODEM
20010 TRAP 20150:OPEN #PTR,8,0,"P:"
20020 ROWCRS=PEEK(84):COLCRS=PEEK(85)
20025 IF COLCRS<1 THEN COLCRS=1
20030 LOCATE COLCRS-1,ROWCRS,CHAR:POS.COLCRS-1,ROWCRS
:PUT #5,CHAR:PUT #5,20
20040 POKE 82,0:POSITION 0,0
20050 PRINT #PTR:PRINT #PTR
20060 FOR I=1 TO ROWCRS
20070 INPUT #5,LINE$:PRINT #PTR,LINE$
20080 NEXT I
20090 POKE 752,1:PUT #5,32
20100 LOCATE COLCRS,ROWCRS,PIXEL:IF PIXEL=20   OR
PIXEL=148 THEN GOTO 20130
20110 ROWCRS=ROWCRS-1:IF ROWCRS<1 THEN GOTO 20130
20120 GOTO 20100
20130 POSITION 1,ROWCRS:POKE 752,0:PUT #5,160 :POKE
82,2:POSITION COLCRS-1,ROWCRS:PUT #5,CHAR
20140 GOSUB 13000:GOTO TERM
20150 POSITION 4,23:PRINT "PLEASE TURN PRINTER ON/TRY
AGAIN!":GOSUB 13000:GOTO TERM
```
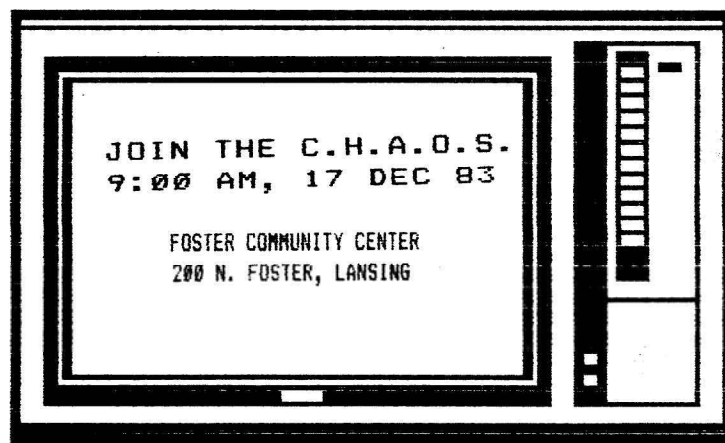
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ATARI TAB FUNCTION
Keith Bushnell

The Atari "POSITION" and "TAB" commands are not usually passed onto the printer; however, a comma in an "LPRINT" statement will normally cause the printer to move to the start of the next column of 10 spaces. The use of the comma will not start a column closer than two spaces from the end of a string or value printed in the previous column. For example if a nine letter word is printed in the first column, the next value would not start at position 11 but would skip to 21.

Several commas can be used in an "LPRINT" statement either before or after a value or string name and the printer will space over accordingly. For example "LPRINT ,,A$,B" would cause the printer to space over 20 spaces (2*10), print string A$, space to the next column of ten and print a variable B.

The value for the spacing caused by the comma can be changed to any value by the use of the "POKE 201,n" command. Memory location 201 normally contains a 10 which it gets from the operating system when the computer is turned on.

"POKE 201,n" instructions are very flexible and work well in formatting data into columns. Listing 1 is a short program that will print either a directory or labels from data statements. Note that each "DIM" statement allows two spaces less than the respective value poked into location 201. This assures that a column will always be aligned. If the string in the data statement exeeds the "DIM" value, it will be truncated to the "DIM" value.

Since the directory information is entered as "DATA" statements, all data loads with the program and works equally well on tape or disk. By placing the names & addresses in order desired, and leaving space for additional names, a sort is not required for the most used output. By using the full power of the ATARI operating system editing features, you can update and correct the list much faster than you can with more sopisticated menu driven programs. The program can also be easily modified. I use several versions including one that prints meeting anouncements.

One note of caution! The value in location 201 must be reset to 10 at the end of each program since it is not automatically reinstated even when "RESET" is pressed or a new program is loaded. The value will only be initialized if the computer is turned off and back on. The value must also never be zero as a loop is entered and even the BREAK key won't interrupt it.

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```
100 DIM NAME$(28),STREET$(32),CITY$(16),STATE$(3),ZIP$(5),TELEPHONE$(12)
110 PRINT "SELECT OPERATION"
120 PRINT " (1) PRINT DIRECTORY"
130 PRINT " (2) PRINT LABELS"
180 PRINT " ENTER NUMBER WANTED";:INPUT T
190 ON T GOTO 194,495 500
194 LPRINT CHR$(15)
195 LPRINT " Church Directory  JUL 24,1983"
196 LPRINT
200 READ NAME$,STREET$,CITY$,STATE$,ZIP$,TELEPHONE$
300 POKE 201,30:LPRINT NAME$,;
305 POKE 201,34:LPRINT STREET$,;
310 POKE 201,20:LPRINT CITY$,;
320 POKE 201,10:LPRINT STATE$,ZIP$,TELEPHONE$
400 GOTO 200
500 READ NAME$,STREET$,CITY$,STATE$,ZIP$,TELEPHONE$
530 LPRINT NAME$
535 LPRINT STREET$
540 POKE 201,20:LPRINT CITY$,;
550 POKE 201,5:LPRINT STATE$,;
560 POKE 201,7:LPRINT ZIP$
570 LPRINT :LPRINT :LPRINT :POKE 201,10
580 GOTO 500
990 DATA Joe & Ann Baas,1600 N. Fairless,Lansing,Mi.,48919,517-515-5555
1000 DATA Jim & Kathy Bulley,1004 B University Village,E. Lansing,Mi.,
48823, 517-355-5888
1100 DATA Michael & Lynn Board,5600 Blissfield St.,Lansing,Mi.,48910,
517-303-3333
1200 DATA Daniel BOOmer,1200 Billy Dr.,Lansing  ,Mi.,48912,517-400-6666
```

Ed. Note...

The "CHR$(15)" in line 194 is intended for Epson-compatible printers. An alternate code may have to be used for your printer.

ASSEMBLER SIG
by Wendell Proudfoot

At our September meeting. (the BIG SIG meeting), we had quite a large turnout! We've got 10 definitely interested members, but since we hardly ever get more than 5 or 6 attending a meeting, we decided to continue meeting at each other's homes for the time being. We decided that our meeting schedule would accomodate most people on the 3rd Thursday of each month at 6:30 P.M.

Because assembler (actually machine language) programming is so heavily dependent on the machine architecture and tends to most often be used as short routines interfaced with Basic. our discussions often stray far from pure assembler. At two of our meetings last summer. we took a look at the figForth implementation available from our club library. Someday we'll have somebody highly interested in graphics implementations in machine language and we'll involve ourselves more deeply in the graphics architecture of the Ataris.
So. if you think you would be interested in either learning about machine language or sharing your knowledge with the rest of us, call us!

THE INSIDE STORY
by Ike Hudson

In the past six months we have all heard of a lot of new disk drives for the Atari. As most of you know, only a small quantity of drives have been delivered. I am going to try to explain what the manufacturers are saying and apply some interpretations using some definitions by Gene Doty in the "Oregon Science Teacher".

The "process"(any activity that can't be completed by one phone call) starts when I responded to an add for the new super drive. I am told by the sales person that the drive "is in process" (so wrapped up in red tape that the situation is almost hopeless).

When I try to verify the price I am told that pricing will be "clarified" (fill in the background with so many details that the foreground goes undergroun) "in the near future" (within the next 25 years).

The production of the drive is being "expedited" (to confound confusion with commotion), but we will "look into it" (we assume that you will have forgotten about it in a short time, so don't bother us again) and "we'll advise you in due course" (if we can figure it out, we'll let you know) as to delivery dates.

I explain to this wonderful company that their drive will sell well if they can get it to the consumer first; but may not do as well if the competition is there first. I am thanked for the "my thought" (we'll listen to what you have to say as long as it doesn't interfere with what we have already decided) and told that my "interpretation" (your warped opinion against your adversary's good common sense) was "very interesting (can I say bye now?).

After interpreting my past conversations with various drive manufacturers, I have come to the conclusion that they all own IBM or Commodore stock. The idea is to create an initial illusion of well-being, followed by a big disappointment. The end result being that we all go out and buy IBM or Commodore computers out of frustration. The only problem is that Commodore is having problems delivering, IBM hasn't delivered, and Commodores are about 50% junk (don't work).

Happy waiting!

'Now that I finally made it to 'star commander' in star raiders...life just doesn't seem to have any meaning."

REPRINTED FROM S.C.A.T. NEWSLETTER

DECEMBER MEETING
MEMBERS AND FAMILY ONLY!
by Ike Hudson

The December meeting will be open to members and their immediate families only. This will be the meeting at which everyone will have an opportunity to take advantage of what is in the club library.

In order to do this, it will be necessary for EVERYONE who wishes to participate to bring a computer, TV, extension cord, and a disk or tape drive. You are probably asking why this is necessary. I think it is now time to start giving a few details.

Thanks to your support, we are now in a position to have a free library copy session. There will be a limit of 5 disks per membership. This will be due to time and equipment constraints.

Those who are able to bring equipment, (computer, TV, and disk or tape) will have an advantage during the copy session. They will not have to wait for someone else to finish.

If you do not already have a copy of the PROGLIB disk, then contact Guy Hurt, or Leo Sell (321-3318) to get a copy. All you have to do is provide a disk or buy a club disk ($2.00) to get a copy. There is no copy fee for the PROGLIB disk.

Contact Guy now if you want a copy. It should be up-to-date by the time you read this.

There will also be several door prizes at the December meeting. The Stick Station and the Sands of Egypt disk that were sent to the club for evaluation will be two of the door prizes. The drawing will be by membership number, and you must be present to win.

PROGLIB IS READY!
THANKS TO GUY AND LEO

The Proglib disk is now complete. We all owe a great big thanks to Leo Sell and Guy Hurt.

Leo did a great job on the Educational database. He has rated each program according to grade level and then graded them to show how good they are. This should help everyone determine what they need from the library.

Guy completed the other three databases. There These now have descriptions and the type of program for almost every program. This should make the program library easier to access for everyone. It will definitely make it easier for the librarians to find the programs you want or need.

INSIDE FACTS

RATHER BYTE THAN SWITCH?

I'd guess that most of you reading this have 8-bit home computers. Some of you have had them for three or four years, or even more. By now you may be considering getting a new machine, and the current craze for 16-bit processors has got you wondering whether that new box ought to have an 8086, 8088 or 68000 chip doing the work for you. This month's column is designed to help you make up your mind.

At the risk of telling you what you may already know, 16-bit processors have a theoretical advantage over 8-bit CPUs, in that they process twice as many bits per byte. I use the word 'theoretical' purposely, for although you might think we're talking about a doubling in processing speed, sometimes that's not the case at all. In fact, some benchmark tests (short looping programs used to time the execution speeds of computers) have shown 8-bit computers to be faster than their 16-bit counterparts.

Another theoretical advantage of 16-bit CPUs is their ability to address more working memory (64,000 bytes for an 8-bit chip vs. over a million bytes for a 16-bit). And yet, unless you have software that does a fancy maneuver called bank-switching, you won't be able to address more than 64K with a 16-bit chip anyway, if you are using BASIC.

That's the bad news. The good news is that most 16-bit computers really *are* faster than the eights, and many of the most-used applications programs are written in Pascal or machine language and are thus not limited to BASIC's 64K. The RAM over and beyond the 64K barrier (128K, 256K, 512K and more) permits two very real improvements over what you have come to expect in the 8-bit world. The first plus is that with the extra available memory, applications programs can be made much more 'user friendly' with menus and ontap *Help* keys to get you out of trouble. The second plus is just now gaining prominence: the extra RAM is designated as a disk-drive device, but since there is no actual drive to start up and no read head to position, the 'drive' is accessed almost instantly. Database management and word processing applications are speeded up immensely by this means.

These and many other attractions are making for hot sales in the 16-bit industry. But despite these lures and the natural desire to feed one's gadgetmania, it is at least worth a little reflection to consider if you really *need* the new stuff as much as you *want* it. That is, do you use your machine so much that saving five seconds each time your disk drive reads or writes will really save you significant time? Perhaps you can save that time by buying a hard disk unit instead, and gain all that storage space to boot. Do you really need one of those new integrated applications packages? (I mean the ones that combine word processing, spreadsheet and graphics in one program.) There's no question these are neat, but is it worth the extra bucks just to save a little disk-swapping at the keyboard? Also, it is most unlikely that your telecomputing activities will benefit from the switch to 16-bits; there just doesn't seem to be much time to be gained there from a faster processor.

Maybe I've raised more questions here than I've answered, but there really are a lot of good reasons to stick with your tried and true 8-bit machine. You already know how to use it; you know where to find out more about hardware and software for the machine; and most important of all, you probably have unleashed only a small fraction of that little computer's power. Why not wring it out before throwing it away?

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